

U.S. Department of Labor Mine Safety and Health Administration Protecting Miners' Safety and Health Since 1978



HIGHWALL SAFETY ALERT

The cooler and/or winter months of October thru April can bring harmful changes to the stability of highwalls due to freeze/thaw cycles. Water that accumulates and freezes in crevices of rocks, creates pressure as the ice expands causing discontinuities or cracks to open further resulting in loose rock on the face, rock falls or even highwall failure. Over the last 10 years Coal surface mines had 31 cold weather related accidents. Of these, there were 6 fatalities and 19 of the accidents resulted in lost workdays restricted duty averaging approximately 45 lost workdays per accident.





BEST PRACTICES

- Train all miners in highwall hazard recognition.
- Conduct examinations of the highwall before, during and after every rain, freeze, or thaw. Inspect the face of the highwall, benches, and areas back of the crest for cracks, loose rocks, sloughing ground, overhangs and large rocks that could be hazardous.
- Do not work under loose highwall material. Scale down loose hazardous material from a safe location. When hazardous conditions cannot be corrected, barricade and post signs to prevent entry. Pay special attention when working in or near corners of highwalls. Points and outside corners of highwalls are typically weaker structurally and create tall, thin columns that are susceptible to toppling failures.
- Incorporate properly sized highwall benches into your ground control plan.
- Remove accumulations of fallen rock from benches and rock catch areas before working in the protected area. Benches, when kept clean, can effectively reduce rock fall hazards by mitigating rock falls from the top of the highwall.
- Communicate hazardous conditions with other miners and equipment operators. Use radios or cell phones to inform them of unsafe highwall conditions.